

REMARKS

Claims 1 and 2 were examined and reported in the Office Action. Claims 1 and 2 are rejected. Claim 2 is amended. Claims 1-2 remain.

Applicants request reconsideration of the application in view of the following remarks.

I. 35 U.S.C. § 103(a)

A. It is asserted in the Office Action that claim 1 is rejected in the Office Action under 35 U.S.C. § 103(a), as being unpatentable over U. S. Patent No. 6,580,536 issued to Chraplyvy et al. ("Chraplyvy"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

According to MPEP §2142

[t]o establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. (In re Vack, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)).

Further, according to MPEP §2143.03, "[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974))." *"All words in a claim must be considered in judging the patentability of that claim against the prior art."* (In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970), emphasis added.)

Applicant's claim 1 contains the limitations of

[a] channel allocation method in a multirate optical WDM transmission system, the method comprising: selecting a channel having the lowest transmission speed from not allotted channels; allotting the selected channel to the longest wavelength band of empty wavelength band of empty wavelength bands; and determining whether not allotted channels exist in order to repeatedly perform selecting the channel having the lowest transmission speed from the not allotted channels and allotting the selected channel to the longest wavelength band of the empty wavelength bands, until all the channels are allotted.

Chraplyvy does not expressly disclose Applicant's claim 1 limitations of "determining whether not allotted channels exist in order to repeatedly perform selecting the channel having the lowest transmission speed from the not allotted channels and allotting the selected channel to the longest wavelength band of the empty wavelength bands, until all the channels are allotted." Additionally Chraplyvy discloses that low-bit rate channels are assigned outside a flat-passband region. Generally, an optical amplifier is used in WDM systems and SNR is lower outside pass bands due to the characteristics of the optical amplifier. Therefore, high-bit rate channels are allocated to a flat-passband region requiring a higher SNR and low-bit rate channels are allocated outside a flat-passband region requiring lower SNR.

Applicant's claimed invention is related to a channel allocating method that considers an SRS effect in order to minimize performance degradation due to a Raman crosstalk. That is, while Chraplyvy employs allocating low-bit rate channels only to portions outside a flat-passband region due to SNR, Applicant's claimed invention does not do this. Applicant's claimed invention employs allocating low-bit rate channels to the longest wavelength among the non-allotted channels by considering the SRS effect, not SNR.

Therefore, Chraplyvy does not teach, disclose or suggest Applicant's claim 1 limitations of:

selecting a channel having the lowest transmission speed from not allotted channels; allotting the selected channel to the longest wavelength band of empty wavelength band of empty wavelength bands; and determining whether not allotted channels exist in order to repeatedly perform selecting the channel having the lowest transmission speed from the not allotted channels and allotting the selected channel to the longest wavelength band of the empty wavelength bands, until all the channels are allotted.

Since, Chraplyvy does not teach, disclose or suggest all the limitations of Applicant's claim 1, as listed above, Applicant's claim 1 is not obvious over Chraplyvy in view of no other prior art since a *prima facie* case of obviousness has not been met under MPEP §2142.

Accordingly, withdrawal of the 35 U.S.C. § 103(a) rejection for claim 1 is respectfully requested.

B. It is asserted in the Office Action that claim 2 is rejected in the Office Action under 35 U.S.C. § 103(a), as being unpatentable over Chraplyvy in view of U. S. Publication 2003/0007723 to Roux et al ("Roux"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

Applicant's claim 2 directly depends on claim 1. Applicant has addressed Chraplyvy regarding claim 1 above in section I(A).

Roux discloses a transmission system for amplifying signals transported by an optical fiber based on two signals of different wavelengths. Roux, however, does not teach, disclose or suggest Applicant's claim 1 limitations of:

determining whether not allotted channels exist in order to repeatedly perform selecting the channel having the lowest transmission speed from the not allotted channels and allotting the selected channel to the longest wavelength band of the empty wavelength bands, until all the channels are allotted.

Further, Applicant's amended claim 2 contains the limitations of "the allotting of the selected channel comprises allotting the selected channel to longest unused wavelength band of a short wavelength band of C-band and a long wavelength band of L-band," which are also not taught, disclosed or suggested by Roux.

Therefore, even if Chraplyvy is combined with Roux the resulting invention would still not teach, disclose or suggest all of Applicant's claim 1 limitations. Since neither Chraplyvy, Roux, and therefore, nor the combination of the two, teach, disclose or suggest all the limitations of Applicant's claim 1, as listed above, Applicant's claim 1 is not obvious over Chraplyvy in view of Roux since a *prima facie* case of obviousness has not been met under MPEP §2142. Additionally, the claim that directly depends from claim 1, namely claim 2, would also not be obvious over Chraplyvy in view of Roux for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 103(a) rejection for claim 2 is respectfully requested.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely 1-2, patentably define the subject invention over the prior art of record and are in condition for allowance and such action is earnestly solicited at the earliest possible date.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

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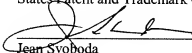
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